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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re Application of:

Hung Dang Ngoc et al

For: RUBBER POLYMER WITH

IMPROVED PROPERTIES

Serial No.: 10/740,250

Filed: December 18, 2003

) Docket No. E-2-A

) Art Unit: 1713

) Examiner:

) I hereby certify that this correspondence is being
) deposited with the United States Postal Service as
) first class mail in an envelope addressed to:
) Commissioner for Patents, P.O. Box 1450,
) Alexandria, VA 22313-1450, on May 10, 2004.

Mary A. Nicoloff
Mary A. Nicoloff

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE IN COMPLIANCE WITH 37 C.F.R. §1.98

As a means of complying with the duty of disclosure set forth in 37 C.F.R. §1.56, the Applicants are calling the following to the attention of the Patent Office and request that they be considered by the Examiner:

United States Patent 4,129,608

United States Patent 5,252,666

United States Patent 3,833,683

United States Patent 6,031,051

United States Patent 6,476,128

United States Patent 5,367,029

International Patent WO 01 74944 A

All of the above-listed references were cited in the European Search Report from the Applicants' corresponding European Patent Application. However, the above-listed references may not be prior art under 35 U.S.C. §102 and this document should not be construed as an admission that any of the above-listed references are prior art within the meaning of 35 U.S.C. §102.

United States Patent 4,129,608 may be relevant to the prosecution of the subject patent application because it discloses a multi-component graft copolymer that comprises 50 to 80 wt. parts of an elastic component produced by an emulsion polymerization of 100 to 70 wt. % of a C₂₋₁₂ alkyl acrylate and 0 to 30 wt. % of a comonomer having a single vinyl or vinylidene group and 50 to 20 wt. parts of a graft polymerized component produced by a

graft polymerization of 5 to 90 wt. % of a vinyl monomer having glycidyl group and 95 to 10 wt. % of a lower alkyl methacrylate, a lower alkyl acrylate, styrene, alpha-methyl styrene, methacrylonitrile, or acrylonitrile on the elastic component. A polymethyl methacrylate or polyvinyl chloride is blended to the multi-component graft copolymer.

United States Patent 5,252,666 may be relevant to the prosecution of the subject patent application because it discloses a particulate graft polymer that comprises from 30 to 90% by weight, of at least one elastomeric polymer A having a median particle size of from 30 to 1000 nm comprising--based on A--from 85 to 99.8% by weight of at least one alkyl acrylate A1 having from 1 to 8 carbon atoms in the alkyl moiety, from 0.1 to 5% by weight of at least one polyfunctional, crosslinking monomer A2 and from 0.1 to 10% by weight of at least one further monoethylenically unsaturated monomer as grafting base, and from 10 to 70% by weight, grafted onto the elastomeric polymer A, of a sheath B comprising--based on B--from 50 to 90% by weight of at least one aromatic vinyl monomer B1 and from 10 to 50% by weight of at least one polar, copolymerizable, ethylenically unsaturated monomer B2, wherein monomer A3 is a hydroxyalkyl acrylate or methacrylate.

United States Patent 3,833,683 may be relevant to the prosecution of the subject patent application because it discloses that improvements in impact strength and fatigue properties in thermoset materials are made by incorporating therein particulate graded-rubber having surface functionality for reaction with constituents of the thermosets.

United States Patent 6,031,051 may be relevant to the prosecution of the subject patent application because it discloses methods for preparing uniformly sized polymer particles comprised of multi-functional monomers such as poly(1,4-butanediol diacrylate) and poly(1,6-hexanediol diacrylate). The particles are of a size, uniformity, and contain physical characteristics that make them ideally suitable for use as spacers in liquid crystal display devices.

United States Patent 6,476,128 may be relevant to the prosecution of the subject patent application because it discloses a process for controlling the surface gloss of a molded composition of: (a) a polyvinyl chloride resin and (b) a graft copolymer comprising a discontinuous poly(alkyl(meth)acrylate) rubber phase and a rigid thermoplastic phase, wherein at least a portion of rigid thermoplastic phase is chemically grafted to the poly(alkyl(meth)acrylate) rubber phase, by regulating the cross-link density and thus the swell index of the rubber phase in the graft copolymer to at least about 8 to vary the surface gloss after extrusion.

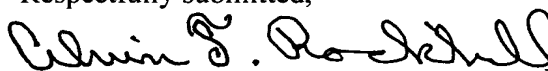
United States Patent 5,367,029 may be relevant to the prosecution of the subject patent application because it discloses that particulate graft copolymers for matt

thermoplastic molding materials contain a base and a graft sheath. The base contains 75 to 99.8% of at least one alkyl acrylate, from 0.1 to 5% of at least one polyfunctional, crosslinking monomer having at least two ethylenic double bonds which are not conjugated in the 1,3-position, and from 0.1 to 20% of at least one ethylenically unsaturated monomer having one or more acidic groups. Alternatively, the base may contain at least 50% of one or more dienes, up to 50% of at least one further ethylenically unsaturated monomer, and up to 15% of at least one ethylenically unsaturated monomer having one or more acidic groups. The sheath contains from 0 to 99.8% of at least one aromatic vinyl monomer, from 0 to 99.8% of at least one polar, copolymerizable, ethylenically unsaturated monomer, from 0.1 to 20% of at least one ethylenically unsaturated monomer having one or more basic groups, and from 0.1 to 10% of at least one hydroxyalkyl (meth)acrylate.

European Patent WO 01 74944 A may be relevant to the prosecution of the subject patent application because it discloses a thermoplastic molding composition which features improved dimensional stability and low gloss. The composition which contains (A) a first grafted rubber having a weight average particle size of 0.05 to 0.30 microns, (B) a second grafted rubber having a weight average particle size of 0.31 to 1.00 microns, (C) vinyl chloride (co) polymer, and, optionally, (D) styrene copolymer, is especially suitable for extruding profiles. In a preferred embodiment, at least one of the grafted rubbers is characterized in that its substrate features a core-shell structure, wherein the core contains at least one crosslinked vinylaromatic polymer, and the shell is elastomeric.

A copy of the above foreign patents and Form PTO-1449 are enclosed herewith.

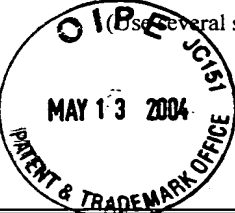
Respectfully submitted,



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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. E-2-A	SERIAL NO. 10/740,250
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (See several sheets if necessary)	APPLICANT (S) Hung Dang Ngoc et al	
	FILING DATE December 18, 2003	GROUP 1713

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Sub-class	Filing Date if Appropriate	
	4,129,608	12/12/78	Murayama et al	260	836		
	5,252,666	10/12/93	Seitz et al	525	80		
	3,833,683	09/03/74	Dickie et al	260	836		
	6,031,051	02/29/00	Wu Jiun-Chem et al	525	243		
	6,476,128	11/05/02	Berzinis	525	70		
	5,367,029	11/22/94	Fischer et al	525	301		

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Sub-Class	Translation YES NO	
	WO 01 74944 A	10/11/01	International				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner Initial		
EXAMINER		DATE CONSIDERED:

Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.